

IN THE CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-22 (canceled)

23. (previously presented) A method, comprising:

reducing the size of a call record maintained for a call, said reducing in response to said call transitioning from an establishment phase to an active phase.

24. (previously presented) The method of claim 23 wherein said reducing further comprises discarding timer information from said call record, said timer information used to determine if a time-out situation has occurred.

25. (previously presented) The method of claim 23 wherein said reducing further comprises discarding retry counter information from said call record, said timer retry counter information used to determine how many times a call set-up retry should be attempted.

26. (previously presented) The method of claim 23 wherein said reducing further comprises discarding pointer information from said call record, said pointer information to setup messages that are processed or forwarded by a controller.

27. (previously presented) The method of claim 23 wherein said call is a point-to-point call.

28. (previously presented) The method of claim 23 wherein said call is point-to-multi-point call.

29. (previously presented) The method of claim 28 further comprising expanding said call record during said active phase to include information used to add a party to said call.

30. (previously presented) The method of claim 29 wherein said information further comprises a pointer to a mini-call record.

31. (previously presented) The method of claim 29 further comprising reducing said call record during said active phase in response to said party being added to said call.

32. (previously presented) The method of claim 28 further comprising expanding said call record during said active phase to include information used to drop a party from said call.

33. (previously presented) The method of claim 32 wherein said information further comprises a pointer to a mini-call record.

34. (previously presented) The method of claim 32 further comprising reducing said call record during said active phase in response to said party being dropped from said call.

35. (previously presented) The method of claim 23 wherein said call is transported through an ATM network.

36. (previously presented) A method, comprising:
expanding the size of a call record maintained for a call, said
expanding in response to said call transitioning from an active phase to a release
phase.

37. (previously presented) The method of claim 23 wherein said call is a
point-to-point call.

38. (previously presented) The method of claim 23 wherein said call is
point-to-multi-point call.

39. (previously presented) The method of claim 36 wherein said call is
transported through an ATM network.

40. (previously presented) A method, comprising:
reducing the size of a call record maintained for a call, said
reducing in response to said call transitioning from an establishment phase to an
active phase;
and
expanding the size of said call record in response to said call
transitioning from said active phase to a release phase.

41. (previously presented) The method of claim 40 wherein said reducing further comprises discarding timer information from said call record, said timer information used to determine if a time-out situation has occurred.

42. (previously presented) The method of claim 40 wherein said reducing further comprises discarding retry counter information from said call record, said timer retry counter information used to determine how many times a call set-up retry should be attempted.

43. (previously presented) The method of claim 40 wherein said reducing further comprises discarding pointer information from said call record, said pointer information to setup messages that are processed or forwarded by a controller.

44. (previously presented) The method of claim 40 wherein said call is a point-to-point call.

45. (previously presented) The method of claim 40 wherein said call is point-to-multi-point call.

46. (previously presented) The method of claim 45 further comprising expanding said call record during said active phase to include information used to add a party to said call.

47. (previously presented) The method of claim 46 wherein said information further comprises a pointer to a mini-call record.

48. (previously presented) The method of claim 46 further comprising reducing said call record during said active phase in response to said party having been added to said call.

49. (previously presented) The method of claim 45 further comprising expanding said call record during said active phase to include information used to drop a party from said call.

50. (previously presented) The method of claim 49 wherein said information further comprises a pointer to a mini-call record.

51. (previously presented) The method of claim 49 further comprising reducing said call record during said active phase in response to said party being dropped from said call.

52. (previously presented) The method of claim 40 wherein said call is transported through an ATM network.

53. (previously presented) An apparatus, comprising:

- a) a switch device; and,
- b) a switched virtual circuit (SVC) controller that manages memory space where call records are stored for calls that flow through said switch device, said switched virtual circuit (SVC) controller configured to reduce the size of a call record maintained for a call that flows through said switch device, said reducing in response to said call transitioning from an establishment phase to an active phase.

54. (previously presented) The apparatus of claim 53 wherein said controller is further configured to expand the size of said call record in response to said call transitioning from said active phase to a release phase.

55. (previously presented) The apparatus of claim 53 wherein said controller further comprises a message processing system that receives a messages from said switch, said transitioning capable of being interpreted from said message.

56. (previously presented) The apparatus of claim 53 wherein said call further comprises a call over an ATM network.

57. (previously presented) The apparatus of claim 53 further comprising a standby controller that assumes operation of said controller if said controller fails.

58. (previously presented) The apparatus of claim 53 wherein said apparatus is operating within a working network.

59. (previously presented) An apparatus, comprising:
means for reducing the size of a call record maintained for a point-to-multipoint call, said reducing in response to said call transitioning from an establishment phase to an active phase; and,
means for expanding said call record during said active phase to include information used to add a party to said call.

Claims 60 – 62 (canceled)

63. (previously presented) The apparatus of claim 59 further comprising means for reducing said call record during said active phase in response to said party being added to said call.

64. (previously presented) The apparatus of claim 59 further comprising means for expanding said call record during said active phase to include information used to drop a second party from said call.

65. (previously presented) The apparatus of claim 64 further comprising means for reducing said call record during said active phase in response to said second party being dropped from said call.

66. (previously presented) The apparatus of claim 59 wherein said call is transported through an ATM network.

67. (previously presented) The apparatus of claim 59 further comprising means for expanding the size of said call record in response to said call transitioning from said active phase to a release phase.

68. (previously presented) An apparatus, comprising:
means for reducing the size of a call record maintained for a point-to-multipoint call, said reducing in response to said call transitioning from an establishment phase to an active phase; and,
means for expanding said call record during said active phase to include information used to drop a party from said call.

69. (previously presented) The apparatus of claim 68 further comprising means for expanding said call record during said active phase to include information used to add a second party to said call.

70. (previously presented) The apparatus of claim 69 further comprising means for reducing said call record during said active phase in response to said second party being added to said call.

71. (previously presented) The apparatus of claim 68 further comprising means for reducing said call record during said active phase in response to said party being dropped from said call.

72. (previously presented) The apparatus of claim 68 wherein said call is transported through an ATM network.

73. (previously presented) The apparatus of claim 68 further comprising means for expanding the size of said call record in response to said call transitioning from said active phase to a release phase.

74. (previously presented) An apparatus, comprising:
means for reducing the size of a call record maintained for a call, said reducing in response to said call transitioning from an establishment phase to an active phase; and
means for expanding the size of said call record in response to said call transitioning from said active phase to a release phase.

75. (previously presented) The apparatus of claim 74 wherein said means for reducing further comprises means for discarding timer information from said call record, said timer information used to determine if a time-out situation has occurred.

76. (previously presented) The apparatus of claim 74 wherein said means for reducing further comprises means for discarding retry counter information from said call record, said timer retry counter information used to determine how many times a call set-up retry should be attempted.

77. (previously presented) The apparatus of claim 74 wherein said means for reducing further comprises means for discarding pointer information from said call record, said pointer information to setup messages that are processed or forwarded by a controller.

78. (previously presented) The apparatus of claim 74 wherein said call is a point-to-point call.

79. (previously presented) The apparatus of claim 74 wherein said call is a point-to-multi-point call.

80. (previously presented) The apparatus of claim 79 further comprising means for expanding said call record during said active phase to include information used to add a party to said call.

81. (previously presented) The apparatus of claim 80 wherein said information further comprises a pointer to a mini-call record.

82. (previously presented) The apparatus of claim 80 further comprising means for reducing said call record during said active phase in response to said party having been added to said call.

83. (previously presented) The apparatus of claim 79 further comprising means for expanding said call record during said active phase to include information used to drop a party from said call.

84. (previously presented) The apparatus of claim 83 wherein said information further comprises a pointer to a mini-call record.

85. (previously presented) The apparatus of claim 83 further comprising means for reducing said call record during said active phase in response to said party being dropped from said call.

86. (previously presented) The apparatus of claim 74 wherein said call is transported through an ATM network.

87. (previously presented) An apparatus, comprising:

a) a switch; and,

b) a readable medium having stored thereon executable

instructions and a memory and processor, said executable instructions and memory and processor for maintaining a call record for a call that flows through said switch, said maintaining a call record further comprising reducing the size of said call record in response to said call transitioning from an establishment phase to an active phase.

88. (previously presented) The apparatus of claim 87 wherein said maintaining further comprises expanding the size of said call record in response to said call transitioning from said active phase to a release phase.

89. (previously presented) The apparatus of claim 87 further comprising a message processing system of which said processor is a part, said message processing system coupled to said switch through a bi-directional interface to transport a message from said switch to said message processing system, said transitioning capable of being interpreted from said message.

90. (previously presented) The apparatus of claim 87 wherein said call further comprises a call over an ATM network.

91. (previously presented) The apparatus of claim 87 wherein said call record comprises a call ID before and after said reducing.

92. (previously presented) The apparatus of claim 87 wherein said call record further comprises quality of service parameters before and after said reducing.

93. (previously presented) The apparatus of claim 87 wherein said maintaining further comprises expanding the size of said call record during said active phase to include information used to add a party to said call, said call a point-to-multipoint call.

94. (previously presented) The apparatus of claim 93 wherein said maintaining further comprises expanding the size of said call record during said active phase to include information used to drop said party from said call.

95. (previously presented) The apparatus of claim 94 wherein said maintaining further comprises reducing the size of said call record during said active phase as a consequence of said party being dropped from said call.

96. (previously presented) An article of manufacture comprising a computer readable medium having instructions which when executed perform a method, said method comprising:

reducing the size of a call record maintained for a call, said reducing in response to said call transitioning from an establishment phase to an active phase.

97. (previously presented) The article of manufacture of claim 96 wherein said reducing further comprises discarding timer information from said call record, said timer information used to determine if a time-out situation has occurred.

98. (previously presented) The article of manufacture of claim 96 wherein said reducing further comprises discarding retry counter information from said call record, said timer retry counter information used to determine how many times a call set-up retry should be attempted.

99. (previously presented) The article of manufacture of claim 96 wherein said reducing further comprises discarding pointer information from said call

record, said pointer information to setup messages that are processed or forwarded by a controller.

100. (previously presented) The article of manufacture of claim 96 wherein said call is a point-to-point call.

101. (previously presented) The article of manufacture of claim 96 wherein said call is point-to-multi-point call.

102. (previously presented) The article of manufacture of claim 101 wherein said method further comprises expanding said call record during said active phase to include information used to add a party to said call.

103. (previously presented) The article of manufacture of claim 102 wherein said information further comprises a pointer to a mini-call record.

104. (previously presented) The article of manufacture of claim 102 wherein said method further comprises reducing said call record during said active phase in response to said party being added to said call.

105. (previously presented) The article of manufacture of claim 101 wherein said method further comprises expanding said call record during said active phase to include information used to drop a party from said call.

106. (previously presented) The article of manufacture of claim 105 wherein said information further comprises a pointer to a mini-call record.

107. (previously presented) The article of manufacture of claim 105 further comprising reducing said call record during said active phase in response to said party being dropped from said call.

108. (previously presented) The article of manufacture of claim 105 wherein said call is transported through an ATM network.

109. (previously presented) An article of manufacture comprising a computer readable medium having instructions which when executed perform a method, said method comprising:

expanding the size of a call record maintained for a call, said expanding in response to said call transitioning from an active phase to a release phase.

110. (previously presented) The article of manufacture of claim 109 wherein said call is a point-to-point call.

111. (previously presented) The article of manufacture of claim 109 wherein said call is point-to-multi-point call.

112. (previously presented) The article of manufacture of claim 109 wherein said call is transported through an ATM network.

COMMENTS

The enclosed is responsive to the Examiner's Office Action mailed on October 22, 2003 and is being filed pursuant to a Request for Continued Examination (RCE) as provided under 37 CFR 1.114. At the time the Examiner mailed the Office Action claims 23-59 and 63-112 were pending. By way of the present response the Applicant has not amended, canceled or amended any claims. As such claim 23-59 and 63-112 remain pending. The Applicant respectfully requests reconsideration of the present application and the allowance of claims 23-59 and 63-112.

The Applicant has herewith filed an Information Disclosure Statement (IDS) that includes "B-ISDN Signaling Protocol Processing for Large Multiplexed Subscriber System", 1995 IEEE International Conference on Communications, Converging Technologies for Tomorrow's Applications. ICC '96. Proceeding of ICC/SUPERCOM '96-INTERNATIONAL CONFERENCE ON COMMUNICATIONS, DALLAS, TX, USA" and which complies with 37 CFR 1.98(a)(2).

Independent Claims 23, 53, 87 and 96

Independent claims 23, 53, 87 and 96 stand rejected under 35 USC 103 as being unpatentable over US Patent No. 6,052,448 (hereinafter, "Janning"). In the Office Action response mailed by the Applicant on 2/4/03 (which was responsive to the Examiner's Office Action mailed on 11/05/02), the Applicant

submitted the following argument to the Examiner at pages 7 to 8 (emphasis partly added and partly original)

With respect to Janning and claim 23, the Applicant respectfully submits that Janning clearly fails to teach or suggest "reducing [the size of a call record] ***in response to*** said call transitioning from an *establishment phase* to an *active phase*." (emphasis added). Instead, viewing Janning in its most favored light with respect to the Examiner's position, Janning can only be reasonably regarded as teaching or suggesting "reducing [the size of a call record] ***in response to*** said call transitioning from an *active phase* to a *release phase*." Here, column 4, line 4 of Janning clearly reveals that formatter 28 is engaged to reduce "raw information" into a call detail record (CDR) only "[w]hen the call is disconnected". Because a *call disconnect* is clearly more analogous to a *release phase* than an *establishment phase* or an *active phase*, it is clear that Janning can at most only be regarded as teaching or suggesting the reducing of a call record size in response to a transition from an *active phase* to a *release phase*. Therefore Janning does not teach or suggest "reducing [the size of a call record] ***in response to*** said call transitioning from an *establishment phase* to an *active phase*".

The Applicant repeated this same argument at pages 18 to 19 in the Office Action Response mailed 7/25/03 (which was responsive to the Examiner's Office Action mailed on 4/25/03) and further elaborated (emphasis added):

Thus the Applicant respectfully submits that the insufficiencies of Janning are related more to Janning's failure to show a **cause-and-effect relationship** between the transitioning from an establishment phase to an active phase and the reducing of a call record size. ..

The Examiner has consistently ignored the Applicant's repeated assertions that Jenning fails to teach a cause and effect relationship between the transitioning from an establishment phase to an active phase and the reduction of a call record size. That is, the Examiner has consistently failed to address the language "**in response to**" that appears in claim 23 (and claims 53, 87 and 96). For Example, in the presently outstanding Office Action, the Examiner's analysis

in rejecting claim 23 stated that

Janning discloses in Figs. 1-3 and in the respective portions of the specification about the system (telecommunications network), apparatus (IXC switch in Figs. 1A-1B), and method for flexible formatting call detail records ("*call record*") to reduce storage and processing requirements within the switch (See Abstract and details in Fig. 2-3; Col. 4 Lines 20-30) for a call ("*point-to-point call*"), by using the call condense agent to collect various types of information regarding the call in the raw information ("*call transitioning from an establishment phase*") as disclosed in Col. 3, Lines 45-62; and when the call is ongoing ("*active phase*"), determine the optimal or 'best fit' template by selecting 'don't care' or 'must have' field types, unused or empty fields in the call's information (For example see Col. 17, lines 12-16, 48-64) to reduce the stored size of the call's information ("*call record*"; For example see Col. 4, Lines 23-30). Janning also discloses that the IXC switch ("*switch device*"), the call condense and formatter agent ("*switched virtual circuit controller*") generate and maintain the formatted CDRs, which store in the storage facility ("memory space where call records are stored"; For example see Col. 4, Lines 354-37).

See, Office Action mailed 10/22/03, page 3.

Note that no mention is made of the claimed phrase "in response to"; nor, is there any attempt to demonstrate that Janning teaches a cause and effect relationship between the transitioning from an establishment phase to an active phase and the reduction of a call record size. Moreover, the Examiner's assertion that "using the call condense agent to collect various types of information regarding the call in the raw information" is sufficient to cover the concept of a "call transitioning from an establishment phase" is simply incorrect in its own terms. Using a call condense agent to collect call related information has nothing to do with a call's transition from an establishment phase.

The Examiner further responded to the Applicant's arguments by stating that:

Janning [discloses] the method for reducing the size of [a] call record ("*reducing the size of the record*") through the use of flexible formatting call detail records to reduce storage and processing requirements within the switch for a call, by using the call condense agent to collect various types of information regarding the call in the raw information as disclosed in Col. 3, Lines 45-62; and when the call is ongoing ("*active phase*"),

determine the optimal or 'best fir' template by selecting 'don't care' or 'must have' field types, unused or empty fields in the call's information (For example see Col. 17, Lines 12-16, 48-64) to reduce the stored size of the call's information ("call record"; For example see Col. 4, Lines 23-30) as disclosed in Part 4 above of this Office action. Therefore, Examiner concludes that Janning teaches the arguable features.

See, Office Action mailed 10/22/03 pages 16-17.

Once again, the Examiner's own reasoning makes plain that the Examiner has failed to address the requirement that Janning teach or suggest some cause and effect relationship between the transitioning from an establishment phase to an active phase and the reduction of a call record size. Nowhere does the Examiner address the phraseology nor the concept behind the claimed term "**in response to**".

The above arguments provided by the Examiner are simply "gibberish" that ramble on aimlessly with citations of random portions of Janning and their purported (and at best only tangential) relation to statements found in the Applicant's claims. The Applicant's claims are simply worded. If the Examiner truly had a sound theory of rejection, it could be articulated and supported in the prior art in approximately equal simplistic terms. The Examiner has also failed to apply the most basic rule for establishing a rejected claim. "To establish a *prima facie* case of obviousness ... the prior art reference (or references when combined) must teach or suggest all the claim limitations." MPEP 2143. It is clear that the Examiner has failed to analyze claims 23, 53, 87 and 96 properly because the Examiner has failed to show that every claim element (including the phrase "**in response to**") could be found in the Janning reference. Moreover,

the Examiner has repeatedly ignored the Applicant's assertions that a patentable distinction lies in the Applicant's use of the phrase "**in response to**".

It is time for the Examiner: 1) to stop ignoring the Applicant's well founded (and correct) assertions of patentability over the Janning reference; and, 2) to stop providing "aimless" justifications for rejection that are incomplete in light of the basic requirements for establishing a claim rejection. In order to force the Examiner and the prosecution of the present case along a proper path, the Applicant requests that the Examiner provide the following:

1) the precise location in the Janning reference that discloses, teaches or suggests a cause and effect relationship between: a) the transitioning from an establishment phase to an active phase; and, b) the reduction of a call record size (such a finding is a minimum requirement to sufficiently cover the term "**in response to**" that is found in each of the Applicant's independent claims 23, 53, 87 and 96);

2) in support of the reasoning provided in the answer to the above question, please explain to the Applicant where the Applicant is incorrect in the Applicant's repeated assertion that

viewing Janning in its most favored light with respect to the Examiner's position, Janning can only be reasonably regarded as teaching or suggesting "reducing [the size of a call record] **in response to** said call transitioning from an *active phase* to a *release phase*." Here, column 4, line 4 of Janning clearly reveals that formatter 28 is engaged to reduce "raw information" into a call detail record (CDR) only "[w]hen the call is disconnected". Because a *call disconnect* is clearly more analogous to a *release phase* than an *establishment phase* or an *active phase*, it is clear

that Janning can at most only be regarded as teaching or suggesting the reducing of a call record size in response to a transition from an *active phase* to a *release phase*.

Independent Claims 36, 59, 68, 74 and 109

Independent claims 36, 59, 68, 74 and 109 stand rejected under 35 USC 103 as being obvious in light of the combination of U.S. Patent No. 4,788,719 (hereinafter, "Gupta") and US Patent No 6,092,071 (hereinafter "Bolan"). Essentially the Examiner has reasoned that Gupta teaches "call records", "call transitioning from an establishment phase to an active phase" and "call transitioning from an active phase to a release phase"; and, that Bolan teaches "expansion" because of its reference to decompression.

Once again the Examiner has ignored the phrase "**in response to**" in each of the claims and has ignored a prior argument made by the Applicant that asserts a patentable distinction over the Gupta reference.

The Examiner's lack of an attempt to cover the claim term "**in response to**" in each of claims 36, 59, 68, 74 and 109 reveals the Examiner's reasoning to be insufficient in meeting the requirements of 35 USC 103. That is, because each and every claim element has not been found in the prior art, the Examiner's rejections are plainly improper. The Applicant respectfully requests the Examiner to find the proper cause-and-effect relationships in the prior art needed to cover the claim term "**in response to**" that exists in each of claims 36, 59, 68, 74 and 109.

Moreover, in the aforementioned Office Action response mailed 2/4/03, the Applicant addressed the Gupta reference as follows (emphasis added in part and original in part):

. . . Gupta simply fails to teach or suggest a change in size of a call record. Gupta only teaches or suggests that: 1) a call record "is established" (See, Gupta, Col. 3, lines 43-44 and Col. 4, lines 10, 12, 25, 27, 36, 38, 49 and 61); and, 2) that the size of an established call record does not change. With respect to the second point highlighted just above, Col. 4 lines 64 through 68 of Gupta clearly reveal that the size of a call record is "reserved" in a "portion of memory" and that a recording program "fill[s] in" this pre-reserved portion of memory with updated data. . . . Because the memory portion for the full call record is reserved beforehand, the ENDT updating of Gupta merely describes a process in which a data value within a pre-established region of memory is *changed* (i.e., the pre-established "portion of memory" corresponds to a *fixed* amount of memory space that the recording program "fills in"). Gupta therefore does not teach that the *size* of the call record *expands* as part of the ENDT updating process. Thus, it is impossible for Gupta to teach or suggest the . . . "expanding" of claim 36.

Because Gupta teaches that the size of call record is to remain fixed, the Applicant respectfully submits that Gupta teaches away from any reference that teaches or suggests mere expansion of data. Said another way, nothing in the combination of the Gupta and Bolan references teaches or suggests the expansion of a call record size as a complete concept. Once again, as expressed to the Examiner in the Applicant's previously filed Office Action response, the Examiner is attempting to fracture the scientific concepts underlying the Applicant's claim language into simple word phrases that can be covered with disjoint references (such as a call record management system taught by Gupta and a computing system that stores compressed information as taught by Bolan). Because the Gupta reference teaches that a call record size remains fixed, at a minimum, the Examiner must find a reference that teaches